

## CLAIMS

We claim:

1. A car guiding and braking device (30) for use in an elevator system (20), comprising:

5 a base member (32) adapted to be supported for movement with an elevator car (22);

a moveable member (34) supported on the base member to be selectively moveable relative to the base member;

10 a guiding member (40) supported on the moveable member such that the guiding member is moveable along a guide rail (24) when the moveable member is in a first operating position; and

a braking member (44, 44', 44'') supported on the moveable member such that the braking member engages the guide rail when the moveable member moves into a second operating position.

15

2. The device of claim 1, including a biasing member (38) that biases the moveable member into the first operating position.

20 3. The device of claim 1, wherein the moveable member (34) comprises a lever that is pivotally supported (36) to pivot relative to the base member between the first and second positions.

4. The device of claim 3, wherein the guiding member (40) and the braking member (44, 44', 44'') are supported near opposite ends of the lever.

25

5. The device of claim 1, including two movable members (34) each supporting a guiding member (40) and a braking member (44) and wherein the moveable members are positioned on the base member (32) such that the braking members are adapted to engage oppositely facing surfaces on the guide rail when the moveable members  
30 move into the second position.

6. The device of claim 1, wherein the guiding member (40) comprises a roller.

7. The device of claim 1, wherein the braking member (44, 44') comprises a brake shoe and including a biasing member (50) that biases the brake shoe away from the moveable member.

5

8. The device of claim 1, wherein the braking member (44'') comprises a roller supported by the moveable member and a brake (64) associated with the roller, an outer surface (68) on the roller engaging the guide rail (24) when the moveable member moves into the second position, the brake engaging a side surface (62) on the roller to apply a braking force to resist rotation of the roller.

10

9. The device of claim 8, wherein the roller rail engaging surface (60) comprises a hardened, knurled metal.

15 10. The device of claim 8, wherein the brake (50) comprises at least one brake pad engaging a side surface (62) on the braking roller (44''), the brake pads applying a braking force in a direction that is parallel to an axis of rotation of the roller.

11. An elevator system (20), comprising:

a car (22);

a guide rail (24) that guides movement of the car;

5 at least two moveable members (34) that are supported for movement with the car, that are positioned on opposite sides of a portion of the guide rail and that are moveable between first and second positions;

a guiding member (40) supported on each moveable member such that the guiding member is moveable along a surface of the guide rail to guide movement of  
10 the car when the moveable member is in the first position; and

a braking member (44, 44', 44'') supported on each moveable member such that the braking member engages the guide rail surface to resist movement of the car when the moveable member moves into the second position.

15 12. The system of claim 11, including at least one biasing member (38) that biases the moveable members (34) into the first position.

13. The system of claim 11, wherein the moveable members (34) comprise levers that are pivotally supported to pivot between the first and second positions.

20

14. The system of claim 13, wherein the guiding members (40) and the braking members (44, 44', 44'') are supported near opposite ends of the corresponding levers.

15. The system of claim 11, wherein the guiding members (40) each comprise a  
25 roller.

16. The system of claim 11, wherein the braking members (44, 44') comprises a brake shoe and including a biasing member (50) that biases each brake shoe away from the corresponding moveable member (34).

30

17. The system of claim 11, wherein the braking members (44'') each comprise a roller supported by the corresponding moveable member and a brake (64) associated with each roller, an outer surface (60) on each roller engaging the guide rail (24) when  
5 the moveable members (34) move into the second position, each brake engaging a side surface (62) on the corresponding roller to apply a braking force to resist rotation of the roller.

18. The system of claim 17, wherein the roller rail engaging surface (60)  
10 comprises a hardened, knurled metal.

19. The system of claim 17, wherein each brake (64) comprises at least one brake pad engaging a side surface on the braking roller, the brake pads applying a braking force in a direction that is parallel to an axis of rotation of the roller (44'').

15

20. The system of claim 11, including at least one stop member (61) that prevents the moveable members from moving beyond the second position.